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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/695,169 10/24/00 DORN

D 550270.90981

EXAMINER

MM91/1109

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ART UNIT	PAPER NUMBER
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2834
DATE MAILED:

11/09/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/695,169

Applicant(s)

DORN, DOUGLAS W.

Examiner

Julio C. Gonzalez

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-17 and 19-22 is/are rejected.
- 7) ☒ Claim(s) 3,4 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Drawings

X 1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the wye configuration, delta configuration, dog-leg configuration, zig-zag and double delta configuration disclosed in claim 4 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

These features/configuration clearly affect in different ways the function of the invention, therefore, the configurations must be shown or the features canceled from the claims.

See MPEP 608.02 (d), 608.02(e).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 3, 4, 7, 14 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

✓ In claim 3, which specifically would be the fourth RMS voltages? Phase A? Phase B?

Both?

X In claim 4, applicant discloses that the alternator can be configured in a single-phase configuration, dog-leg configuration, zig-zag and double delta configuration.

Is it possible to show each configuration showing the connections from the alternator to the configuration and to the circuit? Wouldn't the different configurations affect the

power deliver to the control system? Is the alternator functioning in a three-phase configuration? If so, how can it switch to a single-phase configuration? It seems that the specifications only show one configuration, yet the claims describe several configurations, which would make the control system to behave differently. Are the dog-leg, zig-zag and double delta configuration described in the specification in such a way as to support how such configuration would change/affect the invention?

✓ Also, in claim 4, what is meant by the neutral point of the alternator?

✓ In claim 14, what is meant by the half cycle of the alternator?

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 5, 6, 8-10, 14, 15, 16, 19, 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Stacey.

Stacey discloses a first calculation element 17 that receives three outputs from an alternator, a second calculation element 65, an intermediate signal generator 49, which receives a target input 61 and the first feedback signal and a control signal generator 51 that receives the intermediate signal generator signal and the second feedback signal (see figure 3).

Stacey discloses inherently using software since a ROM is disclosed in the invention.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 7, 13 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stacey in view of King.

Stacey discloses a first calculation element 17 that receives three outputs from an alternator, a second calculation element 65, an intermediate signal generator 49, which receives a target input 61 and the first feedback signal and a control signal generator 51 that receives the intermediate signal generator signal and the second feedback signal.

Stacey discloses inherently using software since a ROM is disclosed in the invention. However, Stacey does not disclose using a PI controller.

On the other hand, King discloses using PI controller 38 for the purpose of recovering energy to recharge the energy storage unit reduce emissions.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design an alternator controller as disclosed by Stacey and to modify the invention by using a PI controller for the purpose of recovering energy to recharge the energy storage unit reduce emissions as disclosed by King.

8. Claims 2, 11, 12 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stacey in view of ordinary skill in the art.

Stacey discloses a first calculation element 17 that receives three outputs from an alternator, a second calculation element 65, an intermediate signal generator 49, which receives a target input 61 and the first feedback signal and a control signal generator 51 that receives the intermediate signal generator signal and the second feedback signal.

Stacey discloses the claim invention except for the constant of 1200 and the feedback signal to be calculated every 10ms or 100ms.

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to find the feedback times and the constant ($120V \times 10$), since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Response to Arguments

9. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

10. Claims 3, 4 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio C. Gonzalez whose telephone number is (703) 305-1563. The examiner can normally be reached on M-F (8AM-5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Jcg

November 6, 2001


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